

**Amendments to the Specification (other than claims):**

Please replace paragraph [0023] with the following amended paragraph:

[0023] Further preferably, the polarizer and the analyzer are characterized in being  
lent a structure having distributed refractive indices, by irradiating with either a  
particle beam or an energy beam a diamond-like carbon (DLC) thin film along a bias  
with respect to the film's thickness direction.

Please replace paragraph [0045] with the following amended paragraph:

[0045] Fig. 12 is a chart diagramming measurement results on the spectral  
transmission characteristics of a DLC thin film actually fabricated using the parallel-  
plate plasma ~~[[CVD]]~~ chemical vapor deposition (CVD) method;

Please replace paragraph [0051] with the following amended paragraph:

[0051] The magneto-optical part 30-1 is constituted from a gadolinium iron garnet  
(GIG hereinafter) thin film, and the dielectric multi-layer films 30-2 are composed by  
laminating in alternation silicon dioxide ~~oxide~~ as a low refractive-index layer, and  
titanium dioxide ~~oxide~~ as a high refractive index layer.

Please replace paragraph [0055] with the following amended paragraph:

[0055] Figs. 2 through 7 are diagrams representing, according to simulations, the function of Faraday rotators that selectively rotate the polarization plane of incident light of given wavelength(s). Data for tantalum oxide ( $\text{Ta}_2\text{O}_5$ ) as a substitute for a GLG thin film, and further, data for silicon dioxide ~~oxide~~ ( $\text{SiO}_2$ ) as a low refractive-index layer and for titanium dioxide ~~oxide~~ as a high refractive-index layer in the dielectric multi-layer film, are respectively used for the simulations illustrated by Figs. 2 through 7.

Please replace paragraph [0056] with the following amended paragraph:

[0056] Transmission characteristics yielded in shining infrared light of 1000 to 2000 nm in wavelength on a multi-layer film made up of the tantalum oxide, silicon dioxide, ~~oxide~~, and titanium dioxide ~~oxide~~ were calculated from the simulations.

Please replace paragraph [0102] with the following amended paragraph:

[0056] Accordingly, that at the 1500 nm wavelength hypothesized for optical communications, the DLC thin film fabricated in this instance has a remarkably low extinction coefficient compared with conventional ~~[[DCL]]~~ DLC was verified. Furthermore, it can be read from Fig. 13 that even for a wavelength not only of 1500 nm, but also in the range of 1200 nm to 1700 nm, the extinction coefficient for the DLC thin film fabricated in this instance is  $3 \times 10^{-4}$  or less, which is lower than the 4

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$\times 10^{-4}$  of conventional DLC. Advantages such as that the lower the extinction coefficient, the less is the signal attenuation in, e.g., the optical communications field will be appreciated.